Diversity Statement

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Diversity and inclusion should be a priority for every computer science department and for every person working in technology. As a white cisgender man I've benefited from a culture in computer science and a society at large that accepts my ability and intellect without a second thought. Meanwhile, I've seen friends and colleagues struggle with the effects of institutionalized bias. At a major conference I've seen attendees ignore a female coauthor who was first author on a paper and direct technical questions to me instead. At University of Washington I've witnessed a climate in public lectures and email lists where a few problematic professors make women feel unwelcome while our department has dragged its feet in addressing the issue. I'm committed to building a more inclusive, welcoming community while making computer science a more diverse field.

Teaching

Research shows that course design and content directly impact whether women and under-represented minorities succeed in class [2]. Inclusive courses motivate students with real-world examples, practical experience, and interconnected lessons. In designing CSE 455–Computer Vision I focus on building such a course. Throughout the quarter students build out a comprehensive image processing library, each week developing new components that rely on each other to form an interconnected whole. Lectures and homeworks are motivated by real-world examples and live demos of functioning vision systems. My hope is that this design makes the material more accessible to women and under-represented minorities. But beyond that, research shows that students of all backgrounds rate these classes as more engaging, fun, and educational—a classic example of the curb-cut effect [1]. Designing systems or institutions for under-served groups ends up benefiting everyone in the community.

Outreach

We need to build a robust educational system to prepare students from diverse backgrounds to succeed in computer science when they get to college. The same approaches that work at the college level work with high school students: a focus on practical skills and experience, and big-picture examples that show that computer sciences is "more than Java programming" [3]. In this endeavor, high school teachers need support from institutions and fellow educators. As a graduate student, I volunteered twice to mentor high school teams for the Paul Allen Computing Challenge, a project-based program to introduce students to data science. Students enjoyed applying concepts in databases and machine learning to perform tasks like analyzing Fitbit data or tracking extreme weather events via Twitter. The majority of students I worked with were women and hopefully this experience and practical grounding gave them a stronger background for succeeding in computer science after high school. I am excited to pursue more of these outreach opportunities as a professor, especially programs specifically targeted towards under-served communities.

Advocacy

As an individual with power and privilege benefiting from often unjust institutions and systems it is

my responsibility to support members of marginalized groups and make our field more welcoming and inclusive. At University of Washington I've worked as a union steward and organizer to win trans-inclusive healthcare and better mental healthcare coverage for graduate students. Gaps in institutional support disproportionately affect minority students to the point of discouraging individuals who don't come from wealthy, privileged backgrounds from pursuing graduate school [4]. Adequate compensation, healthcare coverage, and support are not perks, they are a necessary component to enable students from any background to pursue a graduate degree.

In the Allen School I'm part of a committee of undergrads, graduate students, post-docs, and a member of the executive committee working to address specific problems in our department. We are developing ways to make our mandatory mailing lists more inclusive after a number of incidents that women in the department found hostile and unwelcoming. We are also addressing shortcomings in our introductory program to make the curriculum more engaging to students from a variety of backgrounds.

Moving Forward

I'm committed to building a welcoming, inclusive, diverse educational institution. I will support the ongoing efforts of my future institution and will also work to develop new programs and methods for improving representation in computer science. I will continue to educate myself on effective means of increasing diversity while developing class material to forward those goals. Finally, I will do everything I can to push our institutions towards a more inclusive and equitable future.

References

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